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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,945	10/22/2003	Shirish Dnyaneshware Bahirat	STL11507	6189

7590 03/24/2005

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EXAMINER

SNIEZEK, ANDREW L

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/690,945

**Applicant(s)**

BAHIRAT ET AL.

**Examiner**

Andrew L. Sniezek

**Art Unit**

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9-12, 15-17 and 19 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 8, 13, 14, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/22/03</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings filed 10/23/03 are acceptable to the examiner.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 10/23/03 has been considered.\

### ***Claim Objections***

3. Claims 17-19 and 20 are objected to because of the following informalities: Due to the numbering of claims 17-19 and 20, it is unclear as to which limitations are to be considered together. Claim 20 depends on claim 22, which does not exist in the application. Claim 19 depends upon itself. Appropriate correction is required.

Examiner will assume the proper numbering to similar to the manner in which claims 1-15 were provided, i.e. claim 19 will be considered to depend on claim 16. Claim 20 will be considered to depend on claim 19.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 6, 9-12, 15, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kagami et al. (US006690537B2).

Kagami et al. teaches a method and corresponding apparatus that determines the state of an actuator (seek, settle, follow), providing constants corresponding to the states by the use of matrix K (column 12, lines 58-60) and generating a control output using these states (output from element (10)). Re claim 2: the selecting of the controller is performed by main control device (1). Re claim 3: as seen from figure 1 and as discussed in column 10, lines 41+, rotation/linear vibration is a main concern when moving the actuator across the disk while switching between operation states. Re claim 6: as seen from figure 1 the control states on controller (10) includes settle and track follow. Re claim 9: the control device fetches matrices from memory (9), column 14 therefor the storage location within the memory must be referenced. Claims 10-12 and 15 set forth similar limitation as discussed with respect to claims 1-3 and 6 and therefor rejected for similar reasons. The use of the word "optimizing" as set forth in claim 10 is deemed satisfied by the manner in which the controller (10) is used by Kagami et al. Re claim 16: Kagami et al. teaches an apparatus includes an actuator (3), a memory (9) and a shared controller (10) that receives constants from the memory to form a controller output to the actuator.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 7, 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagami et al. in view of Jeong (US006243226B1).

The teaching of Kagami et al. is discussed above and incorporated herein. Claims 7 and 19 set forth a specific state equation that is used for the controller state. Although this state equation is not taught by Kagami et al., it is well known in the art to use such an equation to represent a controller state (see equation 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the state as discussed in Kagami et al. with another well known state equation, such as equation 9 as taught by Jeong since each are used in similar devices for similar purposes. The limitations of claim 17 is satisfied by Kagami et al. for reason already provided.

***Allowable Subject Matter***

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9. Claims 4-5, 8, 13-14, 18, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

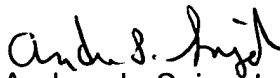
10. The following is a statement of reasons for the indication of allowable subject matter: The claimed method as set forth in claim 4/2/1, 13/11/10 that selects the controller based on a positioning error running average exceeding a predetermined threshold is neither taught by nor an obvious variation of the art of record. The claimed method as set forth in claim 8/7/6/1 and corresponding apparatus set forth in claim 20/19/16 that uses the specific control output equation for the settle and track follow controller as set forth is neither taught by nor an obvious variation of the art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 571-272-7563. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
3/19/05